

### **REMARKS**

In this communication, Applicants has amended Claims 1, 12 and 21-24, and added new Claim 25. No new matter has been introduced. Claims 1, 3-4, 8-17 and 20-25 are pending. Allowance of all pending claims is respectfully requested.

### **Rejections under 35 U.S.C. § 112**

Claims 1, 3-4, 8-17, and 20-24 stand rejected under 35 U.S.C. § 112, second paragraph, for reasons stated on pages 2-3 of the Office Action. Specifically, the Office Action alleges that Claim 1 is confusing because it recites both a carrier free of fluorocarbons and a propellant that may include fluorocarbons.

Claim 1 has been amended to delete the optional propellant that may include fluorocarbons. It is believed that the amendment obviates the ground of the rejection, and withdrawal of the 35 U.S.C. § 112, second paragraph rejection to Claim 1 is respectfully requested.

With respect to new Claim 25, Applicants respectfully submit that the carrier and the propellant are two different components of the claimed composition. One skilled in the art would understand that the claimed composition comprises a carrier that is free of fluorocarbons, and a propellant that may contain fluorocarbons. Accordingly, there is no ambiguity in the language of new Claim 25.

The Office Action alleges that Claim 12 is confusing because of the overlapping ranges of the terms “lipid,” “oil,” and “fatty acid.” Claim 12 has been amended to avoid overlapping terms. Specifically, Applicants has deleted the terms “lipid” and “fatty acid,” and replaced the term “oil” with the term “essential oil.” It is believed that the amendment obviates the ground of the rejection, and withdrawal of the 35 U.S.C. § 112, second paragraph rejection to Claim 12 is

respectfully requested.

The Office Action also maintained the rejection of Claims 3 and 4 for the term “esters.” Specifically, the Office Action alleges that “the instant claim does not recite compounds comprising esters, but recites esters, which refers merely to -C(O)O-.” Applicants respectfully disagree. According to the International Union of Pure and Applied Chemistry (IUPAC), the term “ester” means compounds formally derived from an oxoacid and an alcohol, phenol, heteroarenol, or enol by linking with formal loss of water from an acidic hydroxy group of the former and a hydroxy group of the latter. IUPAC Compendium of Chemical Terminology Enclosed herewith. Therefore, Applicants respectfully submit that the term “esters” does not refer merely to “-C(O)O-” but to compounds comprising “-C(O)O-.”

#### **Rejections under 35 U.S.C. § 103**

Claims 1, 3-4, 8-17, 20-22, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,851,544 to Penska et al. (hereinafter “Penska”) in view of U.S. Patent No. 5,322,683 to Mackles et al. (hereinafter “Mackles”) for reasons stated on pages 3-4 of the Office Action. Applicants respectfully traverse the rejection.

To establish a *prima facie* case of obviousness the prior art reference (or references when combined) must teach or suggest all of the claim limitations. In re Vaeck, 20 USPQ2d 1438 (Fed. Cir. 1991) and MPEP § 2142. Moreover, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In re Jones, 21 USPQ2d 1941 (Fed. Cir. 1992) and MPEP 2143.01.

Independent Claim 1 of the instant application, as amended, is directed to a cosmetic

composition for improving the appearance of skin comprising: from about 0.1 to about 8 wt% carbon dioxide; and from about 92 to about 99 wt% of a dermatologically acceptable carrier, wherein said carrier is free of fluorocarbons.

Penska generally describes cosmetic skin or hair compositions containing a liquid, inert, hydrophobic fluorocarbon infused with carbon dioxide. The gist of Penska's composition is the liquid fluorocarbon because, according to Penska, liquid fluorocarbon has a high capacity for dissolving carbon dioxide and delivers carbon dioxide better (col. 2, lines 50-52; and col. 2, lines 64-66). In order to achieve maximal delivering capacity, Penska teaches bubbling the carbon dioxide gas through the fluorocarbon liquid until the fluorocarbon liquid is totally saturated with carbon dioxide (col. 3, lines 15-32). Penska does not teach or suggest using a carrier free of fluorocarbon. In fact, Penska teaches away from using a carrier free of fluorocarbon in a composition containing carbon dioxide, because the novelty of Penska's invention resides in the use of liquid fluorocarbon for dissolving large quantities of carbon dioxide gas.

Mackles generally describes an anhydrous topically applicable aerosol foam composition comprising a foamable anhydrous liquid, a foaming agent, and a propellant. The propellant can be fluorocarbon. However, Mackles does not address the issue of delivering carbon dioxide in a cosmetic composition to improve skin health. Based on the teachings of Penska and Mackles, a combination of Penska and Mackles would provide a composition having a liquid fluorocarbon as a carbon dioxide carrier and a gas fluorocarbon as propellant, but not a composition having a fluorocarbon-free carrier, as recited in Claim 1 of the instant application. In other words, based on the teachings of Penska and Mackles, there is no motivation nor desirability for one skilled in the art to produce a cosmetic composition having a carrier free of fluorocarbon for the delivery of carbon dioxide, because it would destroy Penska's invention.

Accordingly, Applicants respectfully submit that Penska and Mackles, individually or in

combination, do not render Claim 1 and the new Claim 25 obvious. Applicants further submit that Claims 3-4, 8-17, 20-22 and 24 are patentable over Penska and Mackles because they depend from Claim 1 and define additional patentable subject matter.

Claim 23 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Penska in view of Mackles and further in view of U.S. Patent Application Publication No. 2001/0046474 to Weers et al. (hereinafter “Weers”) for reasons stated on pages 4-5 of the Office Action.

Applicants respectfully traverse the rejection.

Claim 23 has been amended to depend from new Claim 25. As discussed above, Penska and Mackles, individually or in combination, do not render Claim 25 obvious. Weers is directed to stabilized dispersions for the delivery of a bioactive agent to the respiratory tract of a patient. It does not teach or suggest delivering carbon dioxide in a cosmetic composition. Therefore, Weers does not cure the deficiency of Penska and Mackle, and Claim 25 is patentable over Penska, Mackles and Weers. Since Claim 23 depends from Claim 25, Claim 23 is also patentable over Penska, Mackles and Weers.

In view of the foregoing remarks, favorable reconsideration of all pending claims is requested. Applicants respectfully submit that this application is in condition for allowance and requests that a notice of allowance be issued. Should the Examiner believe that anything further is required to expedite the prosecution of this application or further clarify the issues, the Examiner is requested to contact Applicants representative at the telephone number listed below.

Respectfully submitted,

PIPER RUDNICK LLP

A handwritten signature in black ink, appearing to read 'S. Kelber', is written over a horizontal line.

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